

**State of Montana
Office of the Legislative Auditor**

Performance Audit

**WESTERN MONTANA COLLEGE
Physical Plant**

PLEASE RETURN

STATE DOCUMENTS COLLECTION

NOV 3 0 1983

**MONTANA 5
1515 E.**

HELENA, MONTANA 59620

This report contains recommendations for changes in the operation and management of physical plant functions at Western Montana College, including:

- ▶ Development of a preventive maintenance system.
- ▶ Establishing formal goals, objectives, policies and procedures.
- ▶ Reorganizing physical plant functions.
- ▶ Implementing plans to ensure effective management of physical plant functions.

Office of the Legislative Auditor
Room 135, State Capitol
Helena, Montana 59620

MONTANA STATE LIBRARY

S 351.7232 L72wmcp 1983 c.1

Performance audit, Western Montana Colle



3 0864 00046744 2

ml.
83-252
50

STATE OF MONTANA

Office of the Legislative Auditor

STATE CAPITOL
HELENA, MONTANA 59620
406/449-3122



ROBERT R. RINGWOOD
LEGISLATIVE AUDITOR

September 1983

DEPUTY LEGISLATIVE AUDITORS:

JAMES H. GILLET
FINANCIAL/COMPLIANCE AUDITS

SCOTT A. SEACAT
PERFORMANCE AUDITS

STAFF LEGAL COUNSEL

JOHN W. NORTHEY

The Legislative Audit Committee
of the Montana State Legislature:

This is our performance audit of the physical plant operations at Western Montana College. The report contains recommendations for improvements in the management and operation of the physical plant. The responses of the Commissioner of Higher Education and of Western Montana College are contained beginning on page 42.

Sincerely,

A handwritten signature in dark ink, appearing to read "Scott A. Seacat", with a long horizontal flourish extending to the right.

Scott A. Seacat
Deputy Legislative Auditor

Approved:

A handwritten signature in dark ink, appearing to read "Robert R. Ringwood", written in a cursive style.

Robert R. Ringwood
Legislative Auditor

TABLE OF CONTENTS

	<u>Page</u>
List of Illustrations	iii
Administrative Officials	iv
CHAPTER I	
Introduction	
Organization of Report	1
Objectives of Audit	1
Scope of Audit	2
CHAPTER II	
Background	
Physical Plant Department	4
CHAPTER III	
Buildings and Grounds Operations and Maintenance	
Introduction	7
Building Operation and Maintenance Programs	8
Maintenance Programs	8
Work Order System	12
Grounds Maintenance	14
CHAPTER IV	
Custodial Services	
Introduction	17
Custodial Work System	17
Custodial Equipment	19
CHAPTER V	
Financial Administration	
Introduction	21
Purchasing	21

TABLE OF CONTENTS (Continued)

	<u>Page</u>
Listing of Fixed Assets	23
Use of Physical Plant Equipment	24
Staff Housing	25
CHAPTER VI	
Organization and Management	
Introduction	27
Planning	27
Goals and Objectives	27
Policies and Procedures	28
Planning of Projects	29
Organizing	31
Organization of Physical Plant Functions	31
Staffing	35
Staff Evaluations	35
Staff Training	36
Directing	37
Work Performed by the Physical Plant Director	37
Controlling	38
Administrative Records	38
Management of Physical Plant Functions	39
Agency Response	42

LIST OF ILLUSTRATIONS

<u>No.</u>		<u>Page</u>
1	Physical Plant Expenses	6
2	WMC Facilities	8
3	Photo of Broken Roof Shingles	10
4	Photo of Cracked Wall in Library	10
5	Photo of Cracked Drainage Pad Near Dorm	14
6	Photo of Cracked Sidewalk Near Student Union Building	15
7	Photo of College Bus Building	30
8	Current Organization of Maintenance, Repair, and Custodial Functions at WMC	32
9	Recommended Organization of Maintenance, Repair, and Custodial Functions at WMC	34

ADMINISTRATIVE OFFICIALS

COMMISSIONER OF HIGHER EDUCATION

Dr. Irving E. Dayton, Commissioner of Higher Education

John Noble, Deputy Commissioner for Management and Fiscal Affairs

WESTERN MONTANA COLLEGE ADMINISTRATION

Dr. Robert Thomas, President

Dr. Evelyn Hively, Vice-President for Academic Affairs

Glen Leavitt, Director of Fiscal Affairs

Steven Sikes, Controller

Norman Banks, Director of Physical Plant

Chapter I

INTRODUCTION

A performance audit of the physical plant functions at Western Montana College was performed at the request of the Legislative Auditor. This report summarizes the results of the audit.

ORGANIZATION OF REPORT

This report is presented in six chapters. Chapter I introduces the report and summarizes the objectives and scope of our performance audit.

Chapter II presents background information on Western Montana College and the campus physical plant functions.

Chapter III discusses buildings and grounds operation and maintenance and includes recommendations to improve the efficiency and effectiveness of work performed.

Chapter IV examines campus custodial services. It includes recommendations intended to improve the program of facilities cleaning.

Chapter V reviews practices relating to the financial administration of physical plant functions. We offer recommendations for more effective methods of operation in specific areas.

Chapter VI discusses the organization and management of campus maintenance and repair functions and includes recommendations relating to the overall administration of physical plant activity.

OBJECTIVES OF AUDIT

The objective of this audit was to determine if the physical plant functions at Western Montana College were being managed

effectively and efficiently, and to identify the causes of inefficiencies or ineffective practices. This audit report includes recommendations to management including:

- implementation of more systematic and formal methods of maintenance, repair and custodial work;
- volume purchase and storage of commonly used materials and equipment;
- development of a current and accurate inventory system;
- use of formal goals, objectives, policies and procedures;
- reorganization of campus maintenance and repair functions;
- implementation of plans to ensure more effective management of physical plant related functions.

During the audit we issued four interim audit communications to officials of Western Montana College. Interim audit communications are written solicitations of responses from agency management for selected audit points. They address areas relating to report issues and recommendations, and are intended to inform management of these issues during the audit, rather than after audit completion.

SCOPE OF AUDIT

The audit focused on the effectiveness and efficiency of physical plant operations at Western Montana College. For the purposes of this review "physical plant operations" included all campus staff and functions directly involved with areas traditionally included in the operation of a physical plant department. These areas include building and equipment maintenance, custodial services, utilities, landscaping, grounds maintenance, and related administrative functions. The audit was conducted in accordance with generally accepted government performance auditing standards. In

reviewing physical plant staff compliance with applicable rules and regulations we found management could improve in two areas. The improvements are addressed in recommendations made in Chapter V. For those rules and regulations not related to effectiveness or efficiency and, therefore, not tested for compliance, nothing came to our attention during the audit that indicated significant agency non-compliance.

We observed physical plant operations, interviewed staff and faculty, and examined records which were available. We reviewed samples of work order records for residence halls, and purchasing invoices related to physical plant activity. We also reviewed a sample of planning documents associated with building renovation, building construction, and building acquisition projects.

We visited two other colleges in the Montana university system to familiarize ourselves with comparative physical plant management practices. We also relied on comparative information and principles published by national organizations specializing in college administration and physical plant management.

We did not review the financial status of the Western Montana College physical plant operations.

Chapter II

BACKGROUND

The primary purpose of Western Montana College is the education and training of teachers for the public schools of Montana. The college was established in 1893 as the State Normal School. Since that time it has undergone several name and curriculum changes. Western is currently authorized to issue degrees for Bachelor of Science in Elementary and Secondary Education, Bachelor of Science in Natural Heritage, Bachelor of Arts in American Studies, Bachelor of Science in Business Administration, Master of Education, and Associate of Arts and Science degrees. The institution was officially named Western Montana College in 1965.

The campus is located in Dillon, Montana. Current full-time student enrollment is 895, with approximately 350 students residing on campus. There are 45 faculty members and 19 administrative staff positions (8 faculty are also included in staff).

Physical Plant Department

The National Association of College and University Business Officers (NACUBO) states "The role of the physical plant organization in a college or university is to provide an appropriate physical environment for an effective educational program. The physical plant department is concerned with timely service operations, maintenance, and related activity pertaining to the facilities portion of a total learning environment." For the purposes of our review of the physical plant functions we have divided the program into the following major areas:

- buildings operation and maintenance;
- grounds maintenance;
- custodial services;
- financial administration; and
- organization and management.

The physical plant functions are staffed and managed by three separate campus departments: the actual physical plant, auxiliary services, and the physical education department. The physical plant at Western consists of approximately 13 full-time employees (FTE), including the director, personnel of various skill trades, and four part-time night watchmen. In addition to the "formal" physical plant staff, building maintenance, primarily custodial, is provided by employees of the auxiliary services department; four FTE positions are assigned dormitory custodial work. The physical education department also employs one FTE as custodial and maintenance supervisor for the P.E. complex.

The custodial positions are supplemented part-time by students who are assigned custodial work and some grounds keeping. The students are employed either through the college work-study and "room and board" programs, or directly by the institution. Twenty-eight work-study students work for the physical plant. Nine work-study, nine room-and-board, and fifteen institutionally-paid students work for auxiliary services. The physical education department employs 38 room-and-board students who are assigned custodial tasks in the P.E. complex.

Physical plant department expenses are funded from the current unrestricted fund. The following chart is the expense summary for the physical plant department for the past four fiscal years.

PHYSICAL PLANT EXPENSES

	<u>Fiscal Year</u>			
	<u>1979-80</u>	<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>
Personal Services	\$213,575.07	\$218,482.13	\$253,000.91	\$280,118.19
Operating Expenses	159,770.97	186,977.96	239,662.07	246,355.68
Equipment	4,519.56	6,567.10	20,659.16	7,553.20
	\$377,865.60	\$412,027.19	\$513,322.14	\$534,027.07

Source: SBAS

Illustration 1

The auxiliary services department and the physical education department bear additional expenses associated with maintenance and repair functions.

Chapter III

BUILDINGS AND GROUNDS OPERATIONS AND MAINTENANCE

INTRODUCTION

Buildings maintenance and operation requires emergency, preventive, and corrective work on a wide variety of structures and systems. To keep these structures functional, attractive, and economical to operate, the primary goal is to minimize the process of deterioration. The structural work involves attention to foundations, floors, walls, doors, windows, and roofs. The system work includes maintenance of wiring, pipes, and ducts.

Grounds maintenance is intended to preserve grass, gardens, plants, trees, walks, and roads on the campus, and to enhance the attractiveness and utility of campus land. Work is directed toward maintaining neat grounds; that is, well trimmed, raked and free of litter and other debris.

The WMC campus includes 15 major buildings of various sizes and functions located on roughly 34 acres of land. The buildings range in age from 12 to 87 years. The following illustration shows specific dimensions, age, and costs associated with each building.

WMC FACILITIES

<u>Building</u>	<u>Year Built</u>	<u>Age in Years</u>	<u>Approximate Square Footage</u>	<u>Original Cost</u>	<u>Replacement Costs</u>
Old Main	1896	(87)	46,800	\$ 40,000	\$ 2,224,200
Women's Residence	1919	(64)	69,650	180,000	2,500,900
Old Gym	1924	(59)	34,300	140,000	946,100
Old Library	1924	(59)	18,000	140,000	894,800
Heating Plant	1926	(57)	4,500	200,000	281,300
Auditorium	1952	(31)	13,800	160,000	452,300
S.U.B.	1958	(25)	14,600	200,000	604,300
Married Residence	1958	(25)	10,777	200,000	405,300
Jordan Hall	1958	(25)	10,170	217,000	365,600
Davis Hall	1959	(24)	16,114	233,000	649,100
Centennial Hall	1964	(19)	21,500	330,000	847,800
Clark Hall	1967	(16)	29,960	510,000	1,008,000
P.E. Complex	1969	(14)	72,800	950,000	2,355,000
Library/Admin.	1969	(14)	37,768	540,000	1,286,000
Office/Classroom	1971	(12)	42,400	1,000,000	1,674,000
Total			443,139	\$5,040,000	\$16,494,700

Source: Western Montana College records and Department of Administration records.

Illustration 2

During our review of buildings and grounds operations and maintenance we developed audit points regarding the lack of preventive maintenance, the college's use of work orders, and the grounds maintenance system. The following sections discuss these points.

BUILDING OPERATION AND MAINTENANCE PROGRAMS

Maintenance Programs

We found that buildings operations at WMC are geared almost entirely to "corrective" and "crisis" maintenance programs rather than a preventive maintenance program. As discussed by the Association of Physical Plant Administrators of Universities and Colleges (APPA), corrective maintenance focuses on dealing with problems after they occur. Crisis maintenance involves serious problems which develop and require immediate remedial action. In

contrast, preventive maintenance emphasizes identifying and addressing potential problems before they become disruptive to building operations. It is more cost effective to take care of potential maintenance problems early, on a scheduled basis, rather than waiting until a more serious problem needs attention.

In our observations of the WMC campus we noted various areas of disrepair and indications of potential problems in and on the buildings. Some examples include broken or decaying roof shingles, cracked interior walls, chipped exterior walls, and standing water puddles on roofs. The following illustrations show two of these examples. Each is intended to show the type of situation which could be better anticipated and dealt with while still a relatively minor problem. In this way, potential major replacement might be kept to a minimum, or avoided for longer periods.

BROKEN ROOF SHINGLES



Illustration 3

CRACKED WALL IN LIBRARY

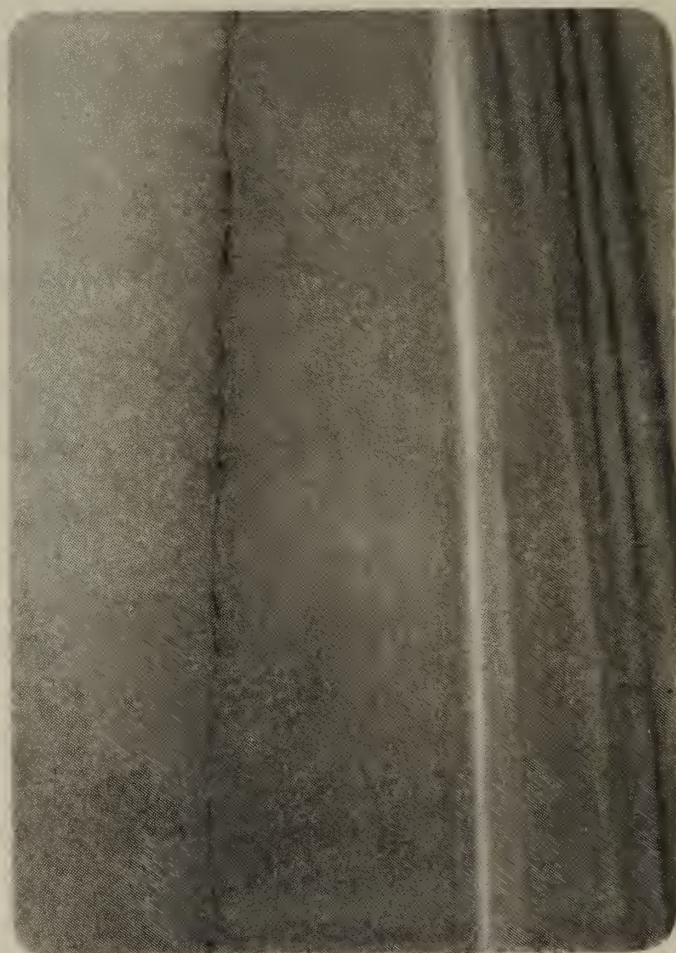


Illustration 4

We also noted some memorandums from college faculty and administrators requesting attention to such things as sagging doors, deteriorating roof flashing, and the unacceptable physical condition of the interior of the auditorium.

Our review further found that the physical plant department uses no written lists of tasks which should be performed on a regular preventive basis; there is no procedure for formally scheduling these kinds of jobs to ensure timely completion; there is no program of frequent formal inspections by physical plant personnel; and there are no records of maintenance or repairs performed.

It has been the philosophy of physical plant management that the administrative matters involved in these procedures are unnecessary. There has been sole reliance on the experience and memory of management in directing operations.

The APPA suggests that these formal procedures are critical in an adequate program of preventive maintenance. The APPA also points out that although corrective maintenance is a necessary part of any physical plant program, when it constitutes virtually the entire program it leads increasingly to crisis maintenance, which is the most costly to the institution. We believe the college should develop a formal preventive maintenance program so management will be able to more accurately monitor building conditions and plan for most maintenance costs. Program procedures should include preparing formal lists, job schedules, inspections, and maintenance records. In this way repairs which could result from the types of deficiencies we observed may be minimized.

RECOMMENDATION #1

WE RECOMMEND THE PHYSICAL PLANT DEPARTMENT IMPLEMENT A FORMAL PREVENTIVE MAINTENANCE PROGRAM.

Work Order System

WMC does not have an adequate system for recording maintenance work that is requested and performed on college buildings and systems. Most institutions document maintenance work through work orders, which are forms used in physical plant programs to provide written descriptions of work requested and completed. The forms may vary among institutions using them; however, all types include certain essential information such as who requested the work; what kind of work was requested; request approval; staffing and material requirements; completion time; and costs. An effective work order system results in quicker responses, greater efficiency, smoother coordination, and better records for long-range planning, according to the APPA. Such a system also provides a historical cost file for each building on a campus. From these records, projections can be made for maintenance costs for the next year on a cost-per-square-foot basis.

In our review of buildings operations we found that, although work order forms have been printed, a system for their use in record keeping has not been formally established. We also noted that they are used inconsistently among personnel involved in campus maintenance. For example, the auxiliary services department uses work orders for some jobs performed in the residence halls; however, the copies of work order forms they keep on file

do not include the time, staffing, or materials required to complete the job. Thus, their value as records is limited. The physical plant department throws the forms away upon completion of jobs, leaving no work record at all.

One of the primary methods used by campus personnel in communicating work requirements is to write descriptions of jobs which require staff attention on a centrally-located blackboard. When the job is completed, the note is to be removed from the blackboard. Such a system may not be consistently effective. For example, we noted a message on the board regarding a steampipe leaking in a classroom. Six days later the message had been removed, but the problem had not been attended to by physical plant personnel. In addition, such a system does not result in a permanent work record which could be used for planning for future maintenance.

Physical plant management and WMC business officers have believed the college is small enough that staff and jobs can be adequately monitored without work order records. None of the methods currently used, however, provides any basis for developing accurate records of costs, time, staffing, or frequency of jobs associated with buildings maintenance. Such information would be available with a properly used work order system.

WMC management has concurred with this analysis and has stated that a work order policy will be implemented for all work except emergencies.

RECOMMENDATION #2

WE RECOMMEND THE MANAGEMENT OF WMC IMPLEMENT A PROGRAM OF CONSISTENT WORK ORDER USE, RETENTION, AND PERIODIC ANALYSIS BY PERSONNEL INVOLVED IN BUILDINGS OPERATION AND MAINTENANCE.

GROUNDS MAINTENANCE

During our inspections of the WMC campus we observed certain examples of grounds disrepair such as badly cracked sidewalks and drainage pads, and crumbling retaining walls. The following illustrations show examples of a cracked drainage pad and a cracked sidewalk.

CRACKED DRAINAGE PAD NEAR DORM



Illustration 5

CRACKED SIDEWALK NEAR STUDENT UNION BUILDING



Illustration 6

We also noted memorandums from faculty and students which cited various examples of grounds disrepair and hazardous conditions during two consecutive years. As described previously, it has been the opinion of physical plant management that many administrative matters relating to physical plant operations are unnecessary at a "small" college like WMC. As a result, the formal use of lists of grounds-keeping tasks, work schedules, inspections and record-keeping has not been implemented. Management feels the condition of the grounds reveal whether work is being performed properly.

Under the circumstances, the potential is increased for higher costs associated with "crisis" replacement or major reconstruction of roads, walks, or walls. Furthermore, student, staff, and faculty safety may be jeopardized unnecessarily in some cases, and WMC is incurring a degree of legal liability which could otherwise be avoidable. For example, we noted one incident in which an attorney advised WMC business officers that a student-client was seeking remedy for potential trauma suffered due to stumbling and falling on a severely cracked section of sidewalk on campus.

The purpose of grounds maintenance is to preserve and enhance campus property thereby maintaining or improving the appeal and utility of areas not occupied by buildings. In this way, grounds maintenance contributes to the physical plant's overall role of providing an appropriate physical environment for an effective educational program. By using a more formally designed program of grounds maintenance, these responsibilities would be better fulfilled. As with buildings maintenance, a grounds maintenance program should include formal lists of tasks, work schedules, inspections and record-keeping.

RECOMMENDATION #3

WE RECOMMEND THE PHYSICAL PLANT DEPARTMENT IMPLEMENT A FORMAL AND SYSTEMATIC PROGRAM OF GROUNDS MAINTENANCE.

Chapter IV

CUSTODIAL SERVICES

INTRODUCTION

In the view of the APPA, effective custodial practices result in the preservation of equipment and buildings, as well as protecting health, promoting safety, and improving morale. Custodial programs require a significant portion of most college physical plant budgets, with most of that portion attributable to the cost of labor. At WMC the custodial services are consistent with this pattern of labor force usage. At many times during the school year there may be more than 70 individuals assigned to custodial services, including permanent staff and students on work-study programs. The following sections discuss our concerns with the college's custodial work system and custodial equipment.

CUSTODIAL WORK SYSTEM

We found that custodial work is performed with inconsistent and incomplete methods. Specifically, we noted that job inventories (lists of required standard tasks) have been developed by only two of the five custodial supervisory personnel; performance standards (time and staffing requirements for various jobs or areas) have been calculated and used by only two of the custodial supervisory personnel; the "inspections" performed by physical plant management amount to informal observations made during walks through buildings; no formal evaluations of custodial work quality are done; and no standards for acceptable levels of building cleanliness have been developed.

We found that custodial work is often performed inadequately as a result of this. For example, we noted the following:

- A memo was written to WMC top administration by some faculty and staff members requesting implementation of a general code or policy designed to prevent the increasing lack of cleanliness of the campus due to student disregard of facilities.
- Work time is used repeatedly to give job assignments and instructions to work-study students, resulting in less time actually spent performing routine custodial tasks.
- In 1982 a WMC Development Committee made up of faculty and staff representatives inspected the campus facilities and drew up a list citing a number of areas where campus custodial work was inadequate.
- In our own inspection of campus buildings, we found various areas in which trash, dust on fixtures, dirty bathrooms and dead flies were left unattended for days, weeks, and months.

These conditions have resulted from the philosophy of physical plant management that most work can be adequately carried out in an informal system based on verbal instructions and staff self-direction. For example, the physical plant director expects the custodial staff to know what they are supposed to do without specific instruction, and that complaints from students, faculty, or staff will reveal whether they are adequately performing their work. Similarly, the auxiliary services director does not utilize formal inspections, instructions, or evaluations in custodial areas.

According to principles suggested by the APPA, an effective custodial program should include the development of formal standards for levels of cleanliness (such as "ideal," "medium" and "minimum"), to be used as the basis for determining how much money and time will be needed to achieve the desired level. In conjunction with these standards, the use of comprehensive job inventories, job

performance standards, frequent formal inspections, and written "feedback" regarding work quality provide the basis for achieving maximum program effectiveness and efficiency. We believe WMC should implement a formal custodial work system to include the above practices. By utilizing this kind of system physical plant management would already know the cleaning requirements of various types of academic areas; could help establish clear college policies regarding cleanliness; could improve the efficiency and effectiveness of tasks performed by work-study students; and could analyze other custodial service options such as contracting.

WMC administration has agreed that a formal custodial system will be of benefit and such procedures will be implemented at the beginning of the regular academic year.

RECOMMENDATION #4

WE RECOMMEND WMC PHYSICAL PLANT MANAGEMENT IMPLEMENT A CUSTODIAL WORK SYSTEM BASED ON FORMALLY-DEVELOPED AND CONSISTENTLY APPLIED CUSTODIAL PROCEDURES.

CUSTODIAL EQUIPMENT

We noted that some of the equipment used by the physical plant custodians does not function to its full potential. Specifically, we found one vacuum that expels a cloud of dust when started; another has broken clamps; and in a third vacuum the bag sticks out and the cleaner must be taped shut when used. During our examination we found that none of the vacuums we checked did a

thorough job of picking up dust or other dirt. We also noted that physical plant custodians have borrowed a rug shampooer from auxiliary services on occasion, because they feel their's is inadequate.

The APPA suggests that adequate custodial equipment is essential to morale, efficiency, and economy. Machines or tools which function improperly will cause jobs to take longer and achieve substandard results. In order to help prevent this, WMC should implement regular maintenance of equipment and replace it when further maintenance is no longer cost effective.

Less money is spent on equipment replacement and maintenance than might otherwise be the case, because of extensive use by students who do not take proper care of equipment, according to physical plant management. WMC management believes the inadequacies of the custodial equipment are due primarily to budgetary constraints. In spite of these views, the ultimate cost to the college in using inadequate equipment and ineffective cleaning is potentially greater than the cost of systematic equipment supervision, maintenance, and replacement.

RECOMMENDATION #5

WE RECOMMEND PHYSICAL PLANT MANAGEMENT IMPLEMENT FORMAL PROCEDURES FOR SYSTEMATIC EQUIPMENT MAINTENANCE AND NEEDED REPLACEMENT.

Chapter V

FINANCIAL ADMINISTRATION

INTRODUCTION

Principles endorsed by both the APPA and the National Association of College and University Business Officers (NACUBO) suggest that financial administration is a fundamental element in sound planning and successful functioning of ongoing campus programs.

Cost records, purchasing, central stores, and inventories are the primary areas of day-to-day focus in budgeting and managing physical plant operations. We found that WMC could improve in the following areas of its financial administration: purchasing, inventory; use of physical plant equipment; and staff housing.

PURCHASING

Our review found that the physical plant department does not make systematic use of volume purchases when buying many types of commonly used items. Volume purchases are used to obtain various cleaning supplies, light bulbs, and certain other fast moving items. Other types of low cost maintenance tools and supplies are often bought by various staff members on an "as needed" basis from local vendors. For example, we reviewed a sample of purchase invoices assigned to the physical plant, the dormitories, and married-student housing, from July 1982 through March 1983. We noted that 66 of these invoices out of a total of 186 were for purchases of \$10 or less. Included in these were two individual purchases of 40 cents and 25 cents. The items purchased included such commonly used items as nuts, bolts, screws, lock washers, drill bits, and caulk.

This system of purchasing is the result of an informal policy which allows some staff, at their own discretion, to purchase items costing less than \$50 from local vendors. WMC business officers have also expressed the opinion that this system has been used in part to help prevent too much money from being tied up in inventory.

Among the reasons the APPA gives for volume purchases are: it provides for a ready supply of commonly used items; there are quantity cost savings; and there is reduced delivery time. Furthermore, carefully kept historical records of material purchases can indicate future needs with enough accuracy to establish reasonable inventory levels.

The purchasing methods currently used require various maintenance personnel to make frequent trips to local vendors during working hours. For example, in the sample described previously, we found that trips downtown were made on 82 days out of a total of 185 working days. This practice excessively increases the per-unit costs on many items due to the wages being paid to the individual making the trip. It results in inefficient use of staff due to work stoppage and restarting time. Administrative costs are also incurred for each purchase invoice which must be processed by the business office.

The physical plant department currently has adequate facilities available on campus for storing volume purchases. WMC should analyze purchase patterns and make use of systematic volume purchasing and storage procedures. This would minimize the unnecessary costs described above and would improve overall work efficiency.

WMC business officers have agreed, and have stated they will begin analyzing purchasing and will implement procedures for more centralized, larger quantity purchases.

RECOMMENDATION #6

WE RECOMMEND THE PHYSICAL PLANT DEPARTMENT BEGIN ANALYZING PURCHASE PATTERNS AND IMPLEMENT PROCEDURES FOR CENTRALIZED, VOLUME PURCHASES OF COMMONLY USED MATERIALS.

LISTING OF FIXED ASSETS

We noted that there is no up-to-date formal listing of WMC property, plant, and equipment. Although implementation of a property management system was in progress during 1979, it was discontinued based on the decision of top WMC administrators. As a result, when we attempted to verify the accuracy of the college's computerized inventory we found that some item descriptions and costs were incorrect; a number of items on the list could not be located; and some pieces of equipment were observed which were not on the inventory.

As noted in previous financial/compliance audits of WMC, the ability to properly account for and otherwise control the investment in property, plant, and equipment is impeded without an adequate inventory system. This situation has also been recognized by WMC business officers in the past, and more recently by some staff and faculty who have cited the occasional loss of valuable equipment. For example, the physical plant director cited the

occasional loss of tools or equipment as the reason he began writing down who was borrowing various items. In addition, we noted concerns expressed by a faculty member regarding the disappearance of typewriters, and by a staff member regarding the loss of microscopes.

Proper procedures for accounting for fixed assets and supplies are suggested by NACUBO and the APPA as integral parts of sound management information systems. Implementation of a comprehensive system for listing fixed assets in conjunction with the physical plant department would provide increased control over equipment purchase, use, and replacement. Since the property, plant, and equipment which is directly or indirectly the responsibility of the physical plant represents a significant financial investment, the physical plant department would be an appropriate coordinator of such a system.

WMC management concurs and has pointed out that the college will begin utilizing the Property Accountability and Management System (PAMS) by the end of fiscal year 1983-84.

RECOMMENDATION #7

WE RECOMMEND WMC MANAGEMENT IMPLEMENT A COMPREHENSIVE SYSTEM FOR LISTING FIXED ASSETS IN CONJUNCTION WITH THE PHYSICAL PLANT DEPARTMENT.

USE OF PHYSICAL PLANT EQUIPMENT

We noted that on some occasions physical plant management has loaned equipment and material belonging to the college to private citizens or business firms for their personal use. For

example, a physical plant record book notes that a plumbing business "borrowed" some copper couplings. A sheetrock hoist and a sodcutting machine have been loaned to individuals on other occasions. In the latter case, physical plant staff have also operated the machine. According to physical plant management this practice has been allowed in the interest of good community relations.

Section 2-2-121, MCA, prohibits the use of state time, facilities, or equipment for personal use of state employees. It is reasonable that a state employee diverting state equipment for the personal use of another individual would also be prohibited. In any case, the practice is of questionable legality and is also questionable from the standpoint of managing and controlling physical plant assets. Based on this, we believe the practice should be discontinued.

WMC administration has concurred with this, and will prohibit the loaning of college resources to the community.

RECOMMENDATION #8

WE RECOMMEND THE DISCONTINUANCE OF THE PRACTICE OF LOANING PHYSICAL PLANT MATERIALS AND EQUIPMENT TO INDIVIDUALS FOR PERSONAL USE.

STAFF HOUSING

Three individuals involved in campus maintenance are provided housing and utilities on the WMC campus at reduced rates or at no charge at all. The college has no current formal contracts, leases, or other agreements on record regarding this compensation.

Section 1007 of the Montana University System Policy and Procedures Manual implies that leases should be established for housing provided to university employees. Furthermore, based on section 119 of the Internal Revenue Service Code, a U.S. District Court recently held (Richard D. Winchell vs. United States of America) that the fair market value of employer provided housing constitutes taxable income if the lodging does not meet three criteria. Specifically, lodging is only exempt from taxation if it is provided for the convenience of the employer, if the employee is required to accept it as a condition of employment, and if it is located on the business premises of the employer.

Without adequate documentation of the financial and employment terms of these housing arrangements, WMC may not be complying with university system policy, and the staff members may not be aware of the IRS code.

The housing arrangements were made through verbal agreements because WMC administration had not believed it necessary to provide extensive documentation in the past. WMC management should prepare formal lease arrangements for maintenance staff housing. The criteria specified by the IRS should also be addressed on a formal basis, if applicable.

The management of WMC has agreed with this, and formal arrangements for housing will be established.

RECOMMENDATION #9

WE RECOMMEND WMC MANAGEMENT PREPARE FORMAL LEASE ARRANGEMENTS OR OTHER SUITABLE DOCUMENTATION FOR MAINTENANCE STAFF HOUSING.

ORGANIZATION AND MANAGEMENT

INTRODUCTION

The purpose of management should be the coordination of staff activity and the allocation of resources in the accomplishment of predetermined goals. This chapter discusses our analysis of various aspects of the physical plant management process. We offer recommendations relating to each of the following:

- Planning: goals and objectives; policies and procedures; and planning for projects.
- Organizing: organization of maintenance and repair functions.
- Staffing: personnel evaluations; personnel training.
- Directing: duties of the physical plant director.
- Controlling: use of administrative records.

The final section of this chapter addresses the overall management of physical plant activity.

PLANNING

Goals and Objectives

During our review we found that no formal goals and objectives have been developed for physical plant related functions at WMC. Administrative officials and the physical plant director expressed the common opinion that WMC is a small enough institution that formalized statements in this area are not needed because they are self-evident.

Establishing goals and objectives is the basis for determining subsequent priorities, procedures, and standards. As part of management's planning function NACUBO cites identification of

specific goals and objectives as a critical part of the process of accomplishing the mission of a college. The APPA suggests that the function of physical plant management involves achieving the goals of the institution by organizing the appropriate program objectives. At both levels the process is intended as the basis for measuring the performance of the organization involved.

Without formal, measurable goals and objectives physical plant management cannot measure progress or otherwise quantify success either in general or specific areas of operations. By setting formal goals and objectives the physical plant would be better able to coordinate its functions with the overall administration of WMC. As described by NACUBO, colleges ". . . cannot engage in academic planning, space planning, or fiscal planning in isolation; the needs of each must be projected in conjunction with the requirements of the others."

RECOMMENDATION #10

WE RECOMMEND WMC MANAGEMENT DEVELOP FORMAL GOALS AND OBJECTIVES FOR PHYSICAL PLANT FUNCTIONS.

Policies and Procedures

We also found that there are no formal policies and procedures governing maintenance and repair of the campus. As with goals and objectives, WMC and physical plant management are of the opinion that the college is small enough that formalized statements or manuals in these areas are not needed; functions can be adequately carried out on a "face-to-face" basis.

NACUBO and APPA suggested standards for physical plant administration and campus operations call for clearly defined and documented responsibility, authority, and operating policies and procedures. Without them the potential for confusion and inconsistency increases. For example, we have noted that inconsistent procedures are used by custodial staff in performing their jobs; different record keeping systems are used; potentially improper use of college facilities and equipment occurs; and repair or maintenance problems may be handled inconsistently by maintenance and repair staff.

In each of these cases, clearly delineated policies and procedures would improve consistency, equitability, and coordination of work, by requiring more uniform and accurately monitored methods.

RECOMMENDATION #11

WE RECOMMEND WMC MANAGEMENT IMPLEMENT FORMAL POLICIES AND PROCEDURES FOR PHYSICAL PLANT OPERATIONS.

Planning of Projects

During our review of major repairs, renovations, and acquisitions we noted the following three instances in which projects were undertaken without a formal, complete planning process.

1. A building intended to house the college bus was constructed approximately one and one-half years ago out of plywood, but was never painted or otherwise finished. The plywood is now deteriorating due to natural exposure to the weather and may have to be replaced in the near future. In addition, it is not located in the vicinity of the campus, making routine maintenance of the structure more difficult and requiring extra travel to and from the building when using the bus. The building is shown in the following illustration.



Illustration 7

2. An office addition and entrance modification were constructed in the administration building. The work did not meet building code standards and resulted in official criticism from the Office of the Commissioner of Higher Education. The Commissioner pointed out that the cost of correcting the work would be greater than any initial savings realized.
3. A building near the WMC campus was purchased with Long-Range Building Program funds in 1983 for approximately \$230,000. No formal written plans detailing specific uses, potential necessary modifications, or occupancy schedules were developed prior to the purchase. As a result, future expenses associated with operation or modification of the building are uncertain.

The APPA suggests that projects should be formally studied before they are pursued. Initial work would involve preliminary screening to determine need and rough cost estimates. A feasibility study should then be conducted. It should include more detailed examination of the purpose of the project; the physical structure of the affected area; potential design and structural problems; completion schedules and costs.

Formal plans for construction or acquisition of the example buildings were not made because WMC management did not feel they were necessary. Management relied on informal discussions among college officials instead. We found that for most other projects the college did detailed preparation. These projects were more appropriately planned than those mentioned above because of the reviews required for most Long-Range Building Program (LRBP) projects.

WMC should include non-LRBP projects in a more formal planning process. The formal planning should involve detailed examination of the project, physical design, scheduling and cost estimates.

RECOMMENDATION #12

WE RECOMMEND MORE FORMAL PLANNING STUDIES BE CONDUCTED PRIOR TO ALL SIGNIFICANT CONSTRUCTION PROJECTS OR PROPERTY PURCHASES.

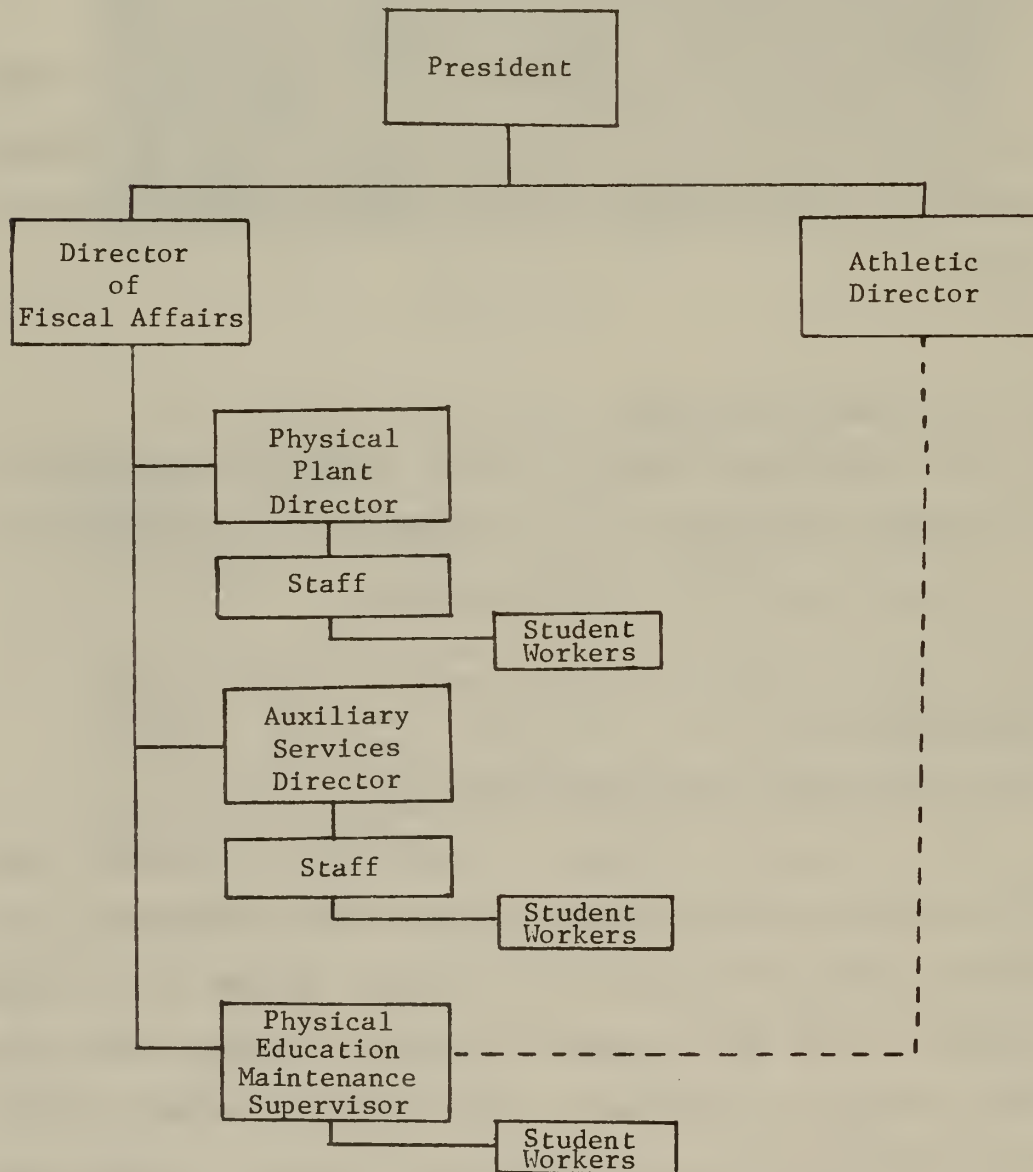
ORGANIZING

Organization of Physical Plant Functions

WMC personnel responsible for grounds and buildings repair and maintenance are currently organized into three separate divisions consisting of physical plant, auxiliary services, and physical education. The total number of individuals directly involved in these functions is approximately 120, including student workers. Physical plant and auxiliary services are headed by directors who report to the WMC director of fiscal affairs, as shown in the following organization chart. A physical education maintenance

supervisor is organizationally responsible to the Director of Fiscal Affairs, but reports to the Athletic Director on a functional basis. This supervisor handles much of the repair and custodial work for the physical education division.

CURRENT ORGANIZATION OF MAINTENANCE, REPAIR,
AND CUSTODIAL FUNCTIONS AT WMC



Source: Developed based on information provided by the WMC business office and supervisory maintenance staff.

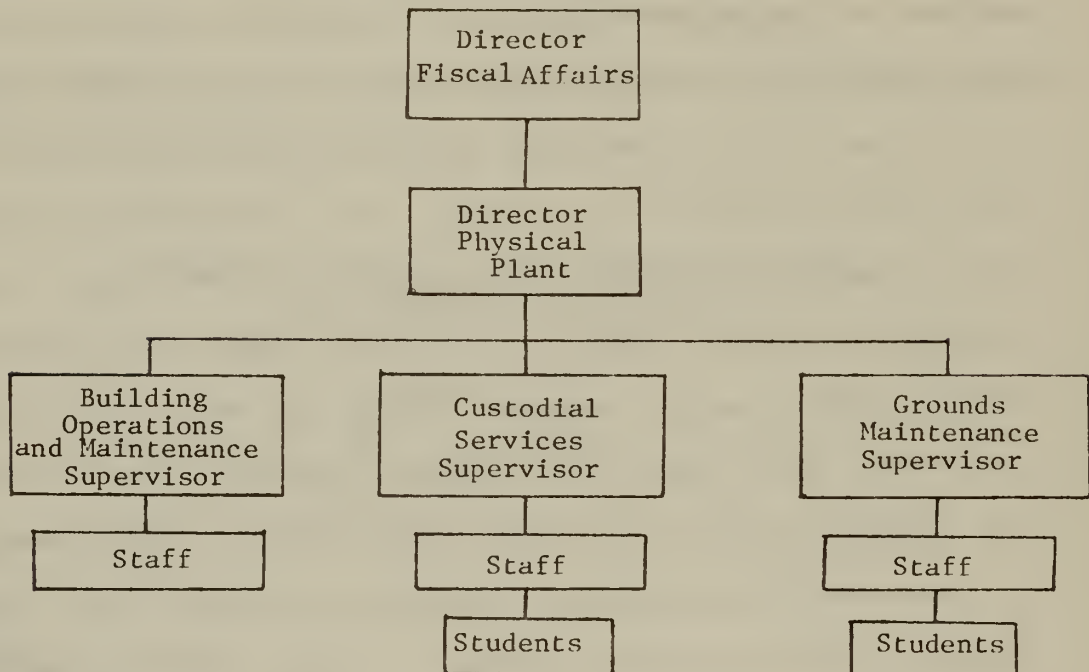
Illustration 8

The structure of an organization should be designed to clarify work relationships, responsibilities, and authority; to minimize confusion or uncertainty regarding assignments; and to provide clear communications among management and non-management personnel. Under current organization of facility maintenance functions, this is not occurring. As a result, there is functional overlap, with all three divisions performing custodial tasks, repair tasks, and grounds keeping tasks. This has resulted in inconsistent, informal policies being developed among the divisions; student performance being evaluated and handled differently; and inconsistent procedures used in handling jobs and in record-keeping.

The current organizational structure has resulted from a lack of proper control by WMC management. Specifically, we noted the following: the separate physical education maintenance program arose largely due to personality conflicts between physical plant staff; as noted by WMC administration, auxiliary services functions in past years underwent expansion in an "ad hoc" fashion; and currently there is no special effort to coordinate the functions of auxiliary services and the physical plant.

We believe all WMC maintenance and custodial functions should be placed under the control of the director of the physical plant. One method of doing this would be to have three supervisory staff members reporting to the physical plant director, as shown in the following chart.

RECOMMENDED ORGANIZATION OF MAINTENANCE, REPAIR
AND CUSTODIAL FUNCTIONS AT WMC



Source: Developed by the Office of the Legislative Auditor based on types of organizational structures suggested by the APPA.

Illustration 9

This type of organizational structure would help promote consistent policies, procedures, and clear communication among all campus maintenance and repair personnel. It would also facilitate improved oversight and decision making by WMC management.

RECOMMENDATION #13

WE RECOMMEND WMC MANAGEMENT REORGANIZE CAMPUS-WIDE MAINTENANCE AND REPAIR FUNCTIONS INTO THE PHYSICAL PLANT DEPARTMENT.

STAFFING

Staff Evaluations

We found that formal performance appraisals are not conducted on physical plant personnel. Physical plant management and WMC administrators have felt such evaluations are not necessary.

A fundamental aspect of the management process is the attempt to improve the knowledge, skills, and attitudes of employees. A related function is assigning responsibility and requiring subsequent accountability for results. A formal and consistent evaluation procedure is one method of contributing to these management functions. Such a procedure promotes clear communication between management and employees concerning employee strengths and weaknesses in job performance, management expectations, employee expectations, and employee morale. Without written evaluations management's ability to appraise long-term performance and maintain documentation for decisions regarding employee compensation, professional duties, advancement or termination is greatly reduced. For these reasons, WMC management should implement the use of formal evaluations for personnel involved with maintenance and repair functions. WMC management has concurred.

RECOMMENDATION #14

WE RECOMMEND WMC MANAGEMENT IMPLEMENT THE USE OF FORMAL PERFORMANCE APPRAISALS FOR ALL STAFF INVOLVED WITH PHYSICAL PLANT FUNCTIONS.

Staff Training

We also found that virtually no formal training has been provided to staff members involved with campus maintenance or repair. The primary reason is that WMC administration has considered this a low priority use of its resources. In addition it has been the philosophy of physical plant management that employees should already be professionally qualified for their jobs when they are hired.

The staffing function within the general management process includes familiarizing new people with their jobs, increasing their proficiency by instruction and practice, and helping them improve their knowledge and skills. Principles outlined by the APPA include personnel training as a major aspect of physical plant management practices. This includes job orientation, in-service training, retraining in appropriate areas, and supervisory training.

Without an effective training program staff workers may be foregoing more effective and less costly methods of performing various tasks. Morale could also be adversely affected among those aspiring to higher organizational positions.

WMC management should implement training programs for staff involved in maintenance and repair functions. Such programs could be conducted in a variety of areas pertaining to plant maintenance techniques, cleaning methods and products, and effective staff supervision.

RECOMMENDATION #15

WE RECOMMEND WMC MANAGEMENT IMPLEMENT TRAINING PROGRAMS FOR STAFF MEMBERS INVOLVED WITH PHYSICAL PLANT FUNCTIONS.

DIRECTING

Work Performed by the Physical Plant Director

On various occasions during the audit we observed the physical plant director performing jobs of unskilled labor such as moving and setting up sprinkler pipes and erecting wire barriers around trees. We also noted that some faculty members expressed concern regarding the frequency of these situations.

The position description for physical plant director does not include reference to performance of such tasks. The primary duties refer to budget preparation, directing the various activities of the staff, responding to emergencies, and performing general administrative duties.

The director is one of the highest paid officials at WMC, and his performance of jobs which could be completed by staff members at significantly lower salary levels is not cost-effective. Furthermore, any time spent on such jobs results in the neglect of appropriate managerial functions.

This situation has been brought about primarily by the director's disinclination toward "paperwork" and other types of administrative matters. We believe that in a technical area such as physical plant, the expertise of the director is a resource which should be used in pursuing more effective management of overall operations.

Effective physical plant functions could best be obtained by having the director concentrate on the managerial duties included in the position description.

RECOMMENDATION #16

WE RECOMMEND THE PHYSICAL PLANT DIRECTOR PERFORM DUTIES CONSISTENT WITH HIS POSITION DESCRIPTION.

CONTROLLING

Administrative Records

In general, records pertaining to physical plant functions and facilities condition on campus are not being maintained. For example, as described in previous chapters, work order records, inspection records, work schedules, and inventory records are not kept. The inadequacy of records in physical plant related areas has resulted primarily from physical plant management's belief that such records do not provide enough benefit to warrant their use.

The APPA stresses adequate operating records as one of the most important administrative activities within physical plant operations. They are the foundation for all phases of ongoing work and proper utilization of resources in managing personnel, finances, building maintenance, grounds maintenance, and custodial services. As pointed out by NACUBO, records in areas such as these form the information systems used for effective management control of day-to-day operations in physical plants.

By not maintaining adequate records, management is unable to accurately monitor specific items such as personnel performance, staffing needs overall and by specific area, efficient job scheduling

and maintenance needs, and property and equipment. In turn, there is no basis for accurate cost calculations in planning for many projects. For example, management is unable to accurately isolate, analyze, and anticipate operating costs in order to establish a realistic budget. Ultimately, operating records provide the means of quantifying performance. WMC management should implement their use in order to gain an increased ability to measure the attainment of objectives and to take corrective action when necessary.

RECOMMENDATION #17

WE RECOMMEND WMC MANAGEMENT IMPLEMENT COMPREHENSIVE RECORD KEEPING AND ANALYSIS PROCEDURES FOR PHYSICAL PLANT RELATED OPERATIONS.

MANAGEMENT OF PHYSICAL PLANT FUNCTIONS

Throughout our review we noted little formal interaction between physical plant-related personnel and WMC management. This low degree of formal involvement has been due largely to the opinion of top management at the college that infrequent communication from physical plant management suggests that operations are adequate. WMC management has felt that physical plant activities have received the least amount of attention because there are so few "crises" arising.

The APPA notes that the physical plant department must work closely with management in charge of business, personnel, and purchasing at colleges because of a dual role: 1) the physical plant should be used as a technical resource for the entire college,

and 2) the physical plant should translate the goals identified by college management into action by establishing appropriate programs to accomplish them.

The audit points described throughout this report reflect the overall ineffective management of physical plant functions at Western Montana College. Our recommendations included:

- improving systems for building, grounds, custodial, and financial operations;
- establishing formal goals, objectives, policies and procedures;
- formal planning for projects;
- reorganizing physical plant functions;
- using formal staff evaluation and training programs;
- more appropriate duties being performed by the physical plant director; and
- improved retention and analysis of administrative records.

Each of these recommendations relates directly to the functions of management. As indicated by the recommendations, physical plant administrators have not been properly managing. More importantly, WMC administration has not been properly managing, as evidenced by its passive role despite ineffective physical plant direction.

Budgetary constraints must constantly be recognized by college administrators, as in all agencies. Physical plant functions constitute a significant part of Western's operating budget, and to a large degree form the basis for all other campus activities. These reasons make it imperative for WMC administration to implement a plan which provides for active management of campus

maintenance and repair functions. This plan should entail an organized effort to correct the deficiencies identified in this report.

RECOMMENDATION #18

WE RECOMMEND WMC ADMINISTRATION IMPLEMENT PLANS TO ENSURE EFFECTIVE MANAGEMENT OF PHYSICAL PLANT-RELATED FUNCTIONS.



THE MONTANA UNIVERSITY SYSTEM

33 SOUTH LAST CHANCE GULCH
HELENA, MONTANA 59620-2602

(406) 449-3024

COMMISSIONER OF HIGHER EDUCATION

September 8, 1983

John H. Gordon
Performance Auditor
Office of the Legislative Auditor
State Capitol
Helena, MT 59620

RECEIVED

SEP 12 1983

MONTANA LEGISLATIVE AUDITOR

Dear Mr. Gordon:

We have reviewed the draft of the Physical Plant performance audit at Western Montana College. We have no formal response to the audit. We plan to follow up the report with WMC officials, and members of my staff will be in attendance when the report is discussed with the Legislative Audit Committee.

Sincerely,

A handwritten signature in dark ink, appearing to read "Irving E. Dayton".

Irving E. Dayton
Commissioner of Higher Education

IED:jw



September 9, 1983

RECEIVED

SEP 12 1983

MONTANA LEGISLATIVE AUDITOR

Robert R. Ringwood
Legislative Auditor
State Capitol
Helena, MT 59620

Dear Mr. Ringwood:

Below please find Western Montana College's response to the recommendations contained in your Performance Audit, WESTERN MONTANA COLLEGE PHYSICAL PLANT.

I am concerned about the general tenor of the report. The connotation is that Western Montana College is very poorly maintained, and the whole campus is rife with "broken or decaying roof shingles, cracked walls, standing water, and is extensively littered with trash, dust on fixtures, dirty bathrooms, and large numbers of dead flies...left for weeks and months".

I will freely admit that we are not using many of the modern management techniques advocated by the APPA, but pictures like those of broken shingles or cracked walls could be taken at any physical plant in Montana including the Capitol complex. I have no doubt that such deficiencies will exist even after instituting many of the changes recommended in the report. The inclusion of those pictures and statements do not prove anything.

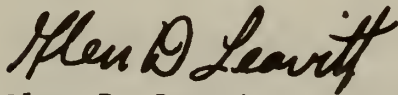
Neither the maintenance nor the custodial service at Western is perfect, but the general appearance of the campus is that it is well maintained and is clean.

A recent letter from the State Fire Marshall concludes:

The overall maintenance and upkeep of the buildings and grounds at Western Montana College is excellent. I would like to commend Mr. Banks and his staff for their continuous work and effort in maintaining this facility at its present level.

We will implement many of your recommendations because we believe they will, over the long run, make our physical plant operation even better.

Sincerely,

A handwritten signature in cursive script that reads "Glen D. Leavitt". The signature is written in dark ink and is positioned above the typed name and title.

Glen D. Leavitt
Director of Fiscal Affairs

GDL/ds



AGENCY RESPONSE TO AUDIT
OF WESTERN MONTANA COLLEGE
PHYSICAL PLANT

Recommendation #1: We recommend the physical plant department implement a formal preventive maintenance program.

Partially Concur. We concur that many maintenance operations are geared to "corrective" or "crisis" maintenance. While there is preventive maintenance, it again is true that the record keeping is mostly in one man's head. However, if we had the funds to hire one more full time person in the physical plant, we would hire a painter (preventive maintenance) and not a clerk.

While preventive maintenance is less costly in the long run, instituting such a program requires that there be enough resources to stay ahead of the corrective maintenance while also performing preventive maintenance.

Western Montana College will institute a more formal preventive maintenance program.

Recommendation #2: We recommend the management of WMC implement a program of consistent work order use, retention, and periodic analysis by personnel involved in buildings operation and maintenance.

Concur. We are enforcing a work order policy in all cases except emergencies.

Recommendation #3: We recommend the physical plant department implement a formal and systematic program of grounds maintenance.

Do not concur. Grounds maintenance is adequate. Replacement of cracked sidewalks will occur based on availability of funds and the priority of other campus physical needs.

Recommendation #4: We recommend WMC physical plant management implement a custodial work system based on formally-developed and consistently applied custodial procedures.

Concur. There should be formal standards, job inventories, and formal inspections, and will implement such procedures during the regular academic year.

Recommendation #5: We recommend physical plant management implement formal procedures for systematic equipment maintenance and needed replacement.

Partially concur. Custodial equipment is inadequate. However, the primary reason for this is budgetary constraints. An inventory of custodial equipment condition will be taken and procedures set up for those repairs within our means.

Recommendation #6: We recommend the physical plant department begin analyzing purchase patterns and implement procedures for centralized, volume purchases of commonly used materials.

Concur. The physical plant will begin analyzing purchase patterns and will implement procedures for more centralized, larger quantity purchases.

Recommendation #7: We recommend WMC management implement a comprehensive system for listing fixed assets in conjunction with the physical plant department.

Concur. WMC will be on PAMS by FYE 84.

Recommendation #8: We recommend the discontinuance of the practice of loaning physical plant materials and equipment to individuals for personal use.

Concur. Orders have been given to discontinue this practice.

Recommendation #9: We recommend WMC management prepare formal lease arrangements or other suitable documentation for maintenance staff housing.

Partially concur. We have a formal agreement with one rentor now, with the rent set at a fair market value at the time the agreement was made. We will execute formal agreements with the other two individuals immediately.

Recommendation #10: We recommend WMC management develop formal goals and objectives for physical plant functions.

Concur.

Recommendation #11: We recommend WMC management implement formal policies and procedures for physical plant operations.

Concur.

Recommendation #12: We recommend more formal planning studies be conducted prior to all significant construction projects or property purchases.

Partially concur. The cost of formal planning studies could exceed the cost of the projects being planned. What constitutes planning is subjective. All branches of government are often rightly accused of always planning and never doing anything. However, we will take cognizance of more factors in our future plans.

Recommendation #13: We recommend WMC management reorganize campus-wide maintenance and repair functions into the physical plant department.

Do not concur at this time. Western Montana College will give due consideration to the recommendation if we reorganize in the future.

Recommendation #14: We recommend WMC management implement the use of formal performance appraisals for all staff involved with physical plant functions.

Concur.

Recommendation #15: We recommend WMC management implement training programs for staff members involved with physical plant functions.

Concur.

Recommendation #16: We recommend the physical plant director perform duties consistent with his position description.

Partially concur. To hire a full time white collar director and a maintenance worker to do the maintenance work now done by the director would not be cost effective either. While it is true that the director could fill an eight hour day

doing administrative paper pushing, paper work for its own sake is not justifiable.

However, with the recommendations we are implementing, the director will be forced to spend more time on administrative matters. I hope that the expected efficiencies materialize to make up for the loss of his direct maintenance time.

Recommendation #17: We recommend WMC management implement comprehensive record keeping and analysis procedures for physical plant related operations.

Partially concur. See above recommendations and agency responses.

Recommendation #18: We recommend WMC administration implement plans to ensure effective management of physical plant-related functions.

See above recommendations and agency responses.

